

Appl. No. 10/079,103
Amdt. dated February 24, 2006
Reply to Office Action of November 30, 2005

REMARKS

Applicants have carefully reviewed the Office Action mailed November 30, 2005, for the above-referenced patent application prior to preparing this response. Currently, claims 44-52 and 56-87 are pending in the application, wherein claims 44-52, 56-75 and 77-87 have been rejected and claim 76 has been objected to as depending from a rejected base claim. Claims 44, 73 and 87 have been amended with this paper. Favorable consideration of the above amendments and following comments is respectfully requested.

Claims 44-52, 56-57, 59-75, 77 and 79-87 stand rejected under 35 U.S.C. §102(e) as being anticipated by Samson et al., U.S. Patent No. 6,143,013. Applicants respectfully traverse this rejection.

Samson fails to teach what is claimed in claim 44. As presently claimed, claim 44 recites a metallic stiffener and a non-metallic stiffener coaxially wound about the inner liner of the proximal section of the elongate tubular member. Furthermore, the non-metallic stiffener is coaxially wound about the inner liner of the distal section of the elongate tubular member. However, the metallic stiffener terminates before reaching the distal section. Thus, the distal section, which includes the non-metallic stiffener of the proximal section, is not only absent the metallic stiffener of the proximal section, but is devoid of any metallic stiffener. This limitation is clearly recited in claim 44 as claim 44 states "the distal section is devoid of a metallic stiffener." (emphasis added).

In order to meet these limitations of claim 44, Samson would need to at least disclose a portion of a catheter shaft having a non-metallic stiffener, yet being devoid of a metallic stiffener. Samson fails to teach this arrangement. In making the rejection, the Examiner made specific reference to Figure 8 of Samson. However, Figure 8 does not teach this claim limitation. In characterizing Figure 8, reference is made to line 66 of column 14 through line 11 of column 15. Figure 8 teaches a catheter having two braids, an inner braid 244 and an outer braid 246. The braids are separated by a middle layer of polymeric tubing 254. A proximal section 242 of the catheter includes both the inner braid 244 and the outer braid 246. A midsection 248 only includes the inner braid 244, as the outer braid 246 terminates proximal the midsection 248. A distal section 252 is formed from the middle layer of polymeric tubing 254 extending distally of the braids and includes neither of the braids.

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Furthermore, Samson teaches 'the term "braid" is meant to include tubular constructions in which the ribbons making up the construction are woven radially in an in-and-out fashion as they cross to form a tubular member defining a single lumen. The braids may be made up of a suitable number of ribbons, typically six or more.' See Samson, column 13, lines 20-25. Thus, each of the braids is made of a plurality of ribbons. Samson further teaches the braids are preferably made of super-elastic ribbons. See Samson, column 9, lines 37-40. Samson does disclose that in some instances a minor portion of the ribbons forming a braid may include non-super-elastic alloy materials, such as nonmetallic materials. See Samson, column 13, lines 4-18. However, Samson states, "to accomplish the benefits of the invention, the major portion of the ribbons making up a braid should be super-elastic alloy." Samson, column 14, lines 22-24. Therefore, Samson teaches a braid may include both metallic ribbons and nonmetallic ribbons. However, Samson, at no point teaches a braid devoid of a metallic ribbon. Furthermore, in describing the braids, Samson fails to teach ribbons of a braid being other than coextensive. Thus, any braided portion having nonmetallic ribbons also includes metallic ribbons. Therefore, at no point does Samson suggest a section of a braid being devoid of a metallic ribbon, yet having a non-metallic ribbon.

In responding to an argument Applicants made in a prior paper, the Examiner has directed the Applicants to lines 55-59 of column 8 of Samson, which recites, "The braid may be partially constructed of polymeric fibers or carbon fibers either replacing a portion of the metallic ribbons or polymeric materials or placed in conjunction with a ribbon of the braid." (emphasis added). This statement further supports Applicants' position. This recitation in Samson supports two braid constructions of a braid partially constructed of polymeric fibers or carbon fibers.

In the first construction, a portion of the metallic ribbons or polymeric materials may be replaced with polymeric fibers or carbon fibers. As Samson discloses only a portion of the metallic ribbons are to be replaced with polymeric fibers, this necessarily suggests less than all of the metallic ribbons are replaced. Thus, the braid retains one or more metallic ribbons and cannot be characterized as being devoid of metallic ribbons.

In the second possible construction, polymeric fibers or carbon fibers may be placed in conjunction with a metallic ribbon of the braid. In this construction none of the metallic ribbons

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are removed, and additional polymeric fibers may be added to the braid. Thus, the braid includes one or more metallic ribbons and cannot be characterized as being devoid of metallic ribbons.

Applicants respectfully assert that the Examiner has misinterpreted this passage relied on for dismissing the Applicants prior remarks. The identified passage, as well as the remainder of the teachings of Samson, cannot be construed to teach a portion of a braid devoid of a metallic ribbon. At most, only a portion of the metallic ribbons may be replaced with nonmetallic ribbons.

Therefore, in view of the above comments regarding the teachings of Samson, and specifically the description at lines 55-59 of column 8, Applicants respectfully assert the Examiner is maintaining an erroneous interpretation of this statement in support of the rejection. Applicants maintain that Samson teaches the braid should include at least one metallic ribbon, preferably a super-elastic alloy ribbon.

Now returning to Figure 8 of Samson, the proximal section 242 includes both the inner and outer braids 244, 246. Thus, any portion of the proximal section 242 would necessarily include a metallic ribbon. The midsection 248 includes the inner braid 244, but the outer braid 246 terminates prior to the midsection 248. Thus, any portion of the midsection 248 must also necessarily include a metallic ribbon of the inner braid 244. The distal section 252 is devoid of any braid. Thus, even though the distal section 252 may be devoid of a metallic ribbon, as there is no braid present in the distal section 252. This suggests the distal section 252 is also devoid of a nonmetallic ribbon. In summary, Figure 8 of Samson fails to teach a section of an elongate tubular member including a coaxially wound non-metallic stiffener, yet being devoid of a metallic stiffener.

For at least the reasons stated above, Samson fails to anticipate claim 44. Therefore, claim 44 is believed to be in condition for allowance. Likewise, claims 45-52 and 56-57 and 59-72, which depend from claim 44 and add significant additional limitations, are also believed to be in condition for allowance. Withdrawal of the rejection is respectfully requested.

Following a similar assessment of the teachings of Samson, it is apparent that Samson also fails to teach what is claimed in claim 73. As presently claimed, claim 73 recites a proximal section of a tubular member comprising a braid member including at least one metal strand interwoven with at least one non-metal strand. The tubular member further includes a distal section comprising a braid member including the at least one non-metal strand of the braid

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member of the proximal section, yet is devoid of the at least one metal strand of the braid member of the proximal section.

Now turning to Figure 8 of Samson, as the inner braid 244 and the outer braid 246 are separated by a polymeric member 254, the ribbons comprising the inner braid 244 cannot be said to be interwoven with the braids of the outer braid 246. In view of the recitation in claim 73 that the claimed strands are interwoven, the discussion should be focused on the ribbons forming either the inner braid 244 or the outer braid 246, as it would be improper to rely on the ribbons of the inner braid 244 in one aspect and the ribbons of the outer braid 246 in another aspect. It follows that the only interwoven ribbons of a braid present in both the proximal section 242 and the midsection 248 is the inner braid 244. (Please recall that the distal section 252 is devoid of any braid). For a discussion of the possible constructions of the inner braid, please refer back to the earlier discussion concluding that Samson teaches the braid should include at least one metallic ribbon, preferably a super-elastic alloy ribbon. As discussed above, Samson fails to teach ribbons of a braid being other than coextensive. Thus, any braided portion having nonmetallic ribbons also includes metallic ribbons. Therefore, at no point through the midsection 248, or any other section, does Samson suggest a section of a braid being devoid of a metallic ribbon, yet having a non-metallic ribbon. In summary, Figure 8 of Samson fails to teach a proximal section of an elongate tubular member including a proximal braid comprising at least one metal strand interwoven with at least one non-metal strand, and a distal section including a distal braid comprising the at least one non-metal strand of the proximal braid, yet being devoid of the at least one metal strand of the proximal braid.

For at least the reasons stated above, Samson fails to anticipate claim 73. Therefore, claim 73 is believed to be in condition for allowance. Likewise, claims 74-75, 77 and 79-86, which depend from claim 73 and add significant addition limitations, are also believed to be in condition for allowance. Withdrawal of the rejection is respectfully requested.

Following a similar assessment of the teachings of Samson, it is apparent that Samson also fails to teach what is claimed in claim 87. As presently claimed, claim 87 recites a proximal section of a catheter comprising a metallic stiffener interwoven with a non-metallic stiffener to form a braid member, and a distal section comprising the non-metallic stiffener of the proximal section, yet devoid of the metallic stiffener of the proximal section.

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Figure 8 of Samson, or any other portion of Samson, fails to teach this arrangement. As discussed above, no portion of Samson includes a non-metallic stiffener, yet is devoid of a metallic stiffener. For at least the reasons stated above, claim 87 is believed to be in condition for allowance as Samson fails to anticipate the claim. Withdrawal of the rejection is respectfully requested.

Claims 58 and 78 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Samson et al., U.S. Patent No. 6,143,013. Applicants respectfully traverse this rejection. Claims 58 and 78 depend from claim 44 and 73, respectively, and include significant additional claimed limitations. As discussed above, Samson fails to anticipate either of claims 44 and 73. Therefore, claims 58 and 78 are additionally believed patentable over Samson. Withdrawal of the rejection is respectfully requested.

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Lex P. Jansen et al.

By their Attorney,

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David M. Crompton, Reg. No. 36,772
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, MN 55403-2420
Telephone: (612) 677-9050
Facsimile: (612) 359-9349